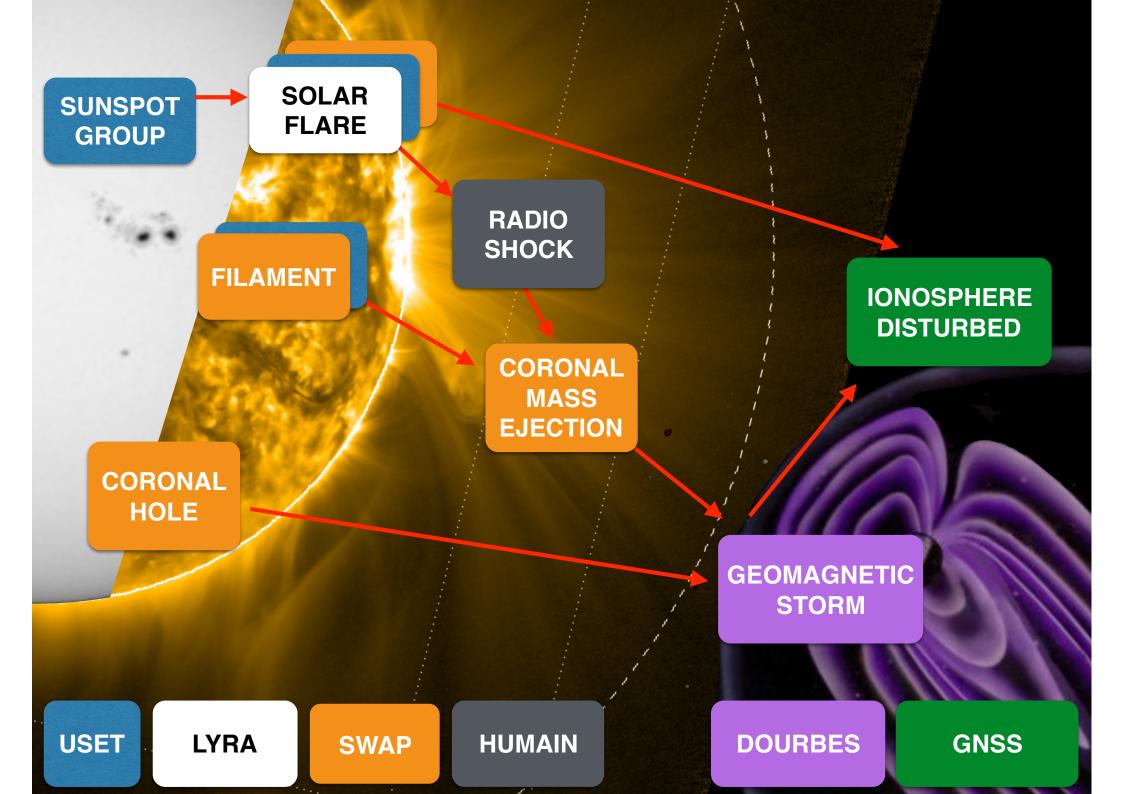
#### Observational infrastructure

@ Brussels Space Pole

David Berghmans



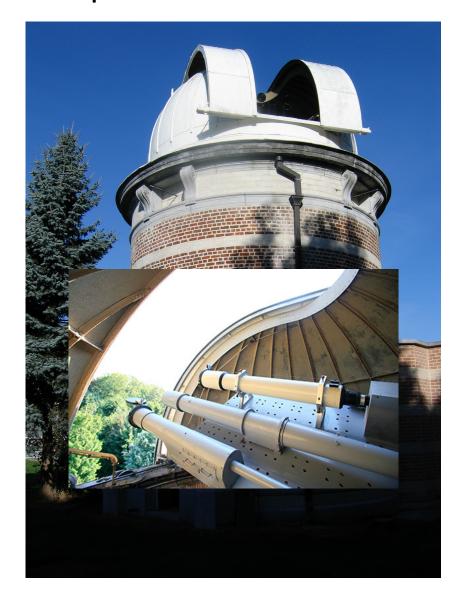
# Royal Observatory of Belgium - SIDC DATE-OBS= '24/07/2004' = "10:40:25" INSTRUME - WHITE-LIGHT 0.085000

## **USET** Uccle Solar Equatorial Table

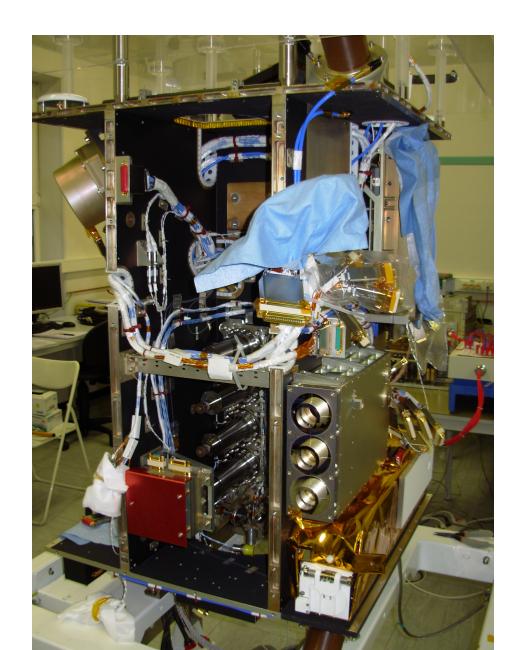


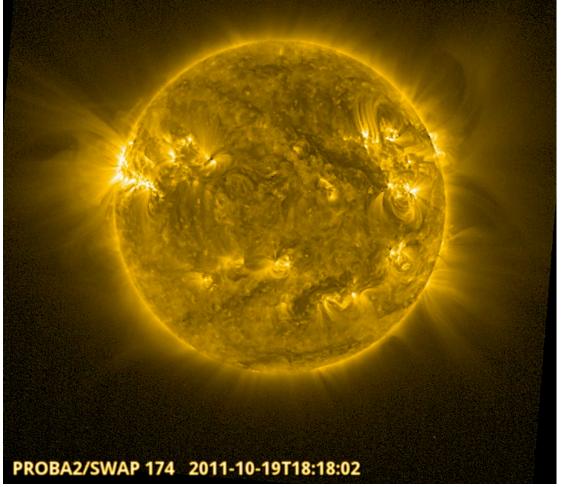
#### Royal Observatory of Belgium - SIDC Observation Date: 12/02/2015 Time of Day (UCT): 12:26:19 USET\_H-alpha Exposure Time: 0.12718 Instrument: Royal Observatory of Belgium - SIDC DATE-OBS= '24/07/2004' = '10:40:25' INSTRUME- WHITE-LIGHT 0.085000

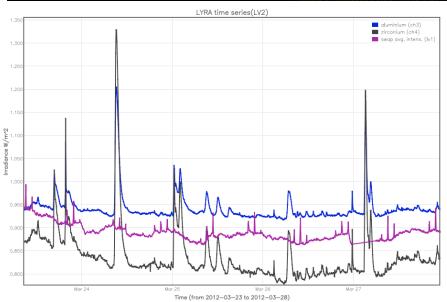
## **USET** Uccle Solar Equatorial Table



## **PROBA2** satellite SWAP & LYRA



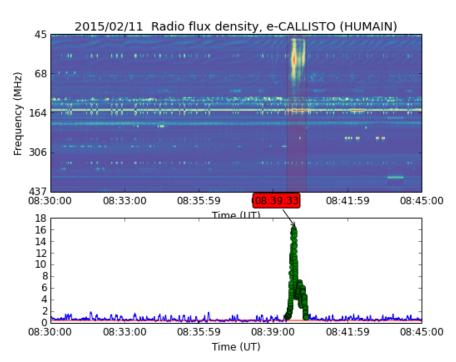


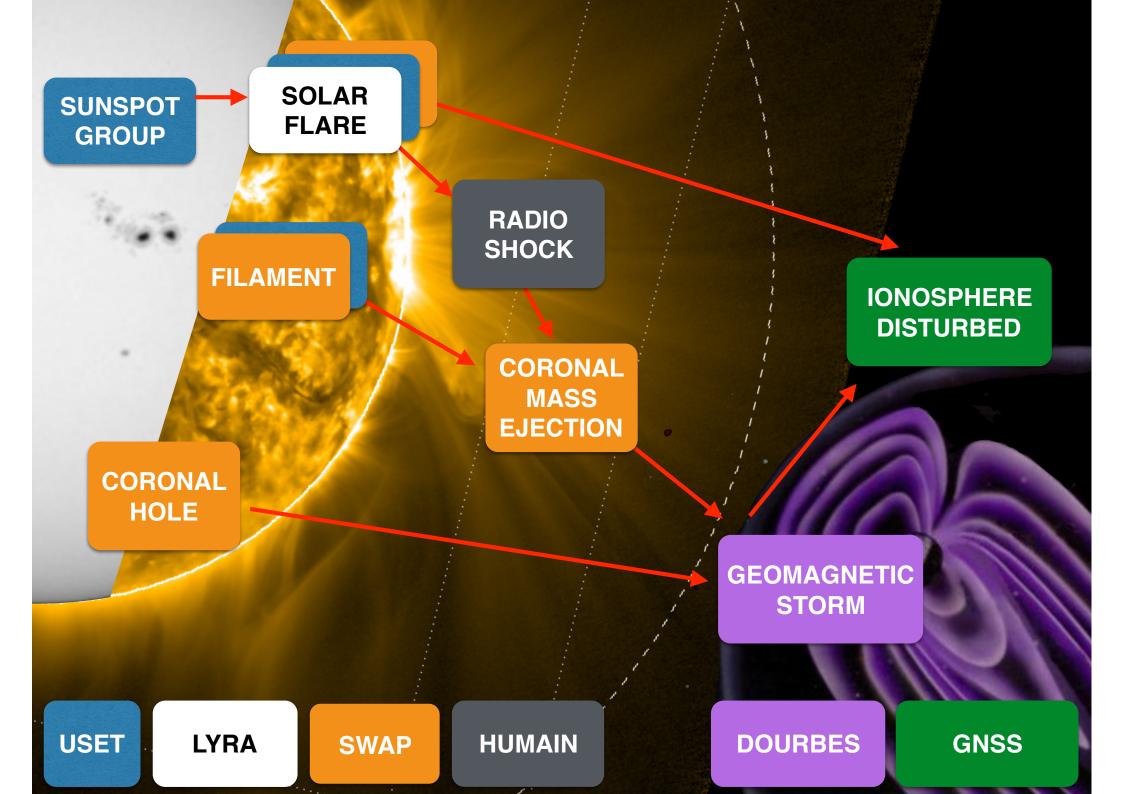




#### **Humain** solar radioastronomy station

#### **Radio bursts**

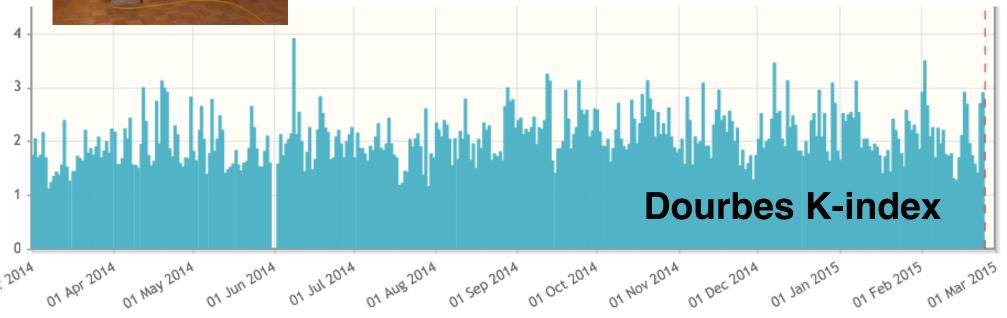




## **Dourbes** magnetic observatory (RMI)







### Conclusions

- 'in house' observational capabilities give us "awareness" across the inner heliosphere. Data sharing with international partners gives redundancy.
- mind the gap between the corona & magnetosphere. To be resolved by heliospheric simulations in collaboration with KULeuven & deep space probes by NASA & ESA
- observations are input to monitoring and forecast services
- observations are distributed free of charge. Tailored data provision services or interfaces can be discussed.
- long term maintenance is an issue, both in space and on the ground

Sun 	Instrument	Location	Measurement	Space Weather phenomena
	USET	Ground, ROB	imaging of solar photosphere & chromosphere	sunspot groups, filaments, flares
	PROBA SWAP & LYRA	Space LEO	coronal imaging and intensity measurements	coronal structures and dynamics, flares
	Humain Radio- observatory	Ground, Ardennes	radio spectrographs	coronal bursts & shocks
	Dourbes Magnetic observatory	Ground, ?	local magnetic deflections	geomagnetic storms
User	GNSS network	distributed	TEC maps	ionosphere